

We claim:

1. Composite elements comprising

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(i) thermoplastic polyurethanes and, adhering thereto,

10 (ii) microcellular polyurethane elastomers with a density of from 300 to 700 kg/m³, a tensile strength to DIN 53571 of from 3 to 8 N/mm², an elongation at break to DIN 53571 of from 350 to 550%, a tear propagation resistance to DIN 53515 of from 8 to 30 N/mm and a rebound resilience to DIN 53512 of from 50 to 60%.

15 2. A process for producing composite elements as claimed in claim 1 by preparing (ii) in the presence of (i), which comprises basing (i) on the reaction of (a) isocyanates with (b) compounds reactive to isocyanates, if desired in the presence of (d) catalysts and/or (e) auxiliaries and/or 20 additives, where the ratio of the isocyanate groups present in (a) to the groups present in (b) and reactive to isocyanates is greater than 1.06:1.

25 3. A process as claimed in claim 2, wherein the ratio of the isocyanate groups present in (a) to the groups present in (b) and reactive to isocyanates is from 1.1 : 1 to 1.2 : 1.

30 4. A process as claimed in claim 2, wherein (ii) is prepared in a closed mold in contact with (i) by reacting a prepolymer having isocyanate groups with a crosslinking agent component comprising (c) blowing agent, (d) catalysts and (e) auxiliaries and/or additives.

35 5. A process as claimed in claim 2, wherein the preparation of (ii) is preceded by degreasing that surface of (i) to which (ii) adheres.

40 6. A process as claimed in claim 4, wherein the crosslinking agent component comprises (c) water, (d) catalyst and, as (e), polysiloxanes, sulfated castor oil or n-alkylbenzenesulfonic acids having from 9 to 15 carbon atoms in the alkyl radical.

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7. A composite element obtainable by a process as claimed in any one of claims 2 to 6.

5 8. The use of composite elements as claimed in claim 1 or 7 as damping elements in automotive construction.

10 9. A damping element in automotive construction comprising composite elements as claimed in claim 1 or 7.

15 Add A2

Add C3

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